

Title (en)

INTERNAL STATE ESTIMATION SYSTEM AND ESTIMATION METHOD

Title (de)

INTERNES ZUSTANDSSCHÄTZUNGSSYSTEM SCHÄTZUNGSVERFAHREN

Title (fr)

SYSTÈME D'ESTIMATION D'ÉTAT INTERNE ET PROCÉDÉ D'ESTIMATION

Publication

EP 3173805 A1 20170531 (EN)

Application

EP 15756541 A 20150224

Priority

- JP 2014151904 A 20140725
- JP 2015055164 W 20150224

Abstract (en)

A method of estimating, as the charging rate of an electricity storage system, the internal condition of the electricity storage system including plural batteries, and an internal condition estimating system utilizing that method are provided. A voltage measuring unit 3 measures voltages of all batteries 1 configuring an electricity storage system block 2. A system cell voltage determining unit 5 determines a system cell voltage that will be a reference for an estimation of the SOC value of the electricity storage system block 2 based on the voltage value of the plural batteries 1 measured by the voltage measuring unit 3. The system cell voltage determining unit 5 obtains the system cell voltage by giving a weighting to the voltage value in accordance with the pre-calculated SOC value of the electricity storage system block 2. The system SOC estimating unit 6 estimates the SOC value of the electricity storage system block 2 based on the current flowing through the battery 1 and the system cell voltage.

IPC 8 full level

G01R 31/36 (2006.01); **H01M 10/48** (2006.01); **H02J 7/00** (2006.01)

CPC (source: EP US)

G01R 31/388 (2018.12 - US); **G01R 31/396** (2018.12 - EP US); **G01R 31/367** (2018.12 - EP US); **G01R 31/3842** (2018.12 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

US 10338152 B2 20190702; US 2016025814 A1 20160128; CN 105745552 A 20160706; CN 110221228 A 20190910;
EP 3173805 A1 20170531; EP 3173805 A4 20180404; EP 3173805 B1 20210526; JP 6367217 B2 20180801; JP WO2016013241 A1 20170427;
KR 101717001 B1 20170315; KR 20160037830 A 20160406; WO 2016013241 A1 20160128

DOCDB simple family (application)

US 201514842477 A 20150901; CN 201580000407 A 20150224; CN 201910535995 A 20150224; EP 15756541 A 20150224;
JP 2015055164 W 20150224; JP 2015545559 A 20150224; KR 20157024152 A 20150224